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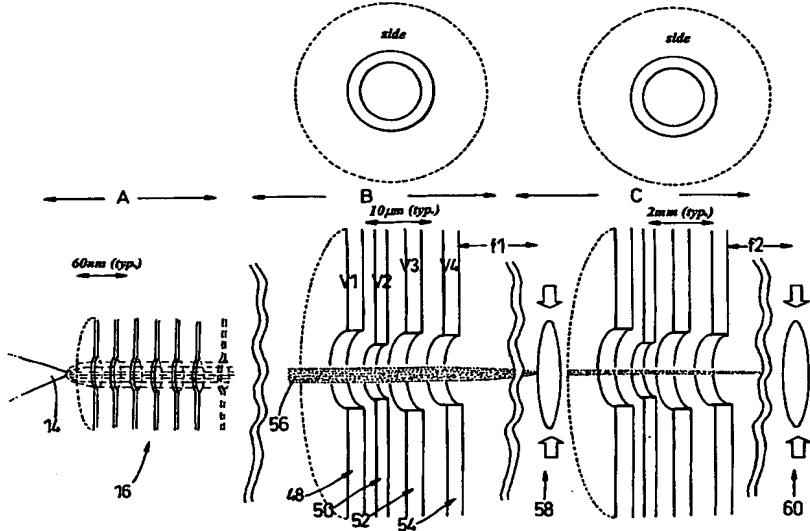
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(57) Abstract: The source of electrons is a nanotip in a vacuum as used in near field microscopy. The source of ions is a similar nanotip in vacuum supplied with liquid metal (gallium) as in a liquid-metal ion source. Electrons or ions from this nanometre-sized tip are extracted by centralising the tip over an aperture plate and applying a suitable voltage to the tip. The electrons (ions) pass through this plate and are accelerated up to several keV using a nanoscale/microscale accelerating column before being focussed using further microscale (or nanoscale) cylindrical lenses. The final element is an aberration corrected miniature (or sub-miniature) einzel lens which can focus the beam at several millimetres from the end of the instrument.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 023 060 A (KIM HO-SEOB ET AL) 8 February 2000 (2000-02-08) abstract column 1, line 57-62 column 2, line 18-24 figure 3 --- A	1,16,17
A	US 6 369 385 B1 (KIM HO-SEOB ET AL) 9 April 2002 (2002-04-09) abstract column 7, line 26-39 figures 5,8 --- -/--	1-17

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Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	"FABRICATION OF VERTICALLY ALIGNED APERTURES FOR E-BEAM MICROCOLUMN APPLICATION" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 37, no. 12, 1 December 1994 (1994-12-01), pages 583-584, XP000487902 ISSN: 0018-8689 page 583 -page 584 -----	1-17
A	CHANG T H P ET AL: "A SCANNING TUNNELING MICROSCOPE BASED MICROCOLUMN SYSTEM" JAPANESE JOURNAL OF APPLIED PHYSICS, PUBLICATION OFFICE JAPANESE JOURNAL OF APPLIED PHYSICS. TOKYO, JP, vol. 31, no. 12B, PART 1, 1 December 1992 (1992-12-01), pages 4232-4240, XP000415428 ISSN: 0021-4922 abstract paragraph 'INTRO' table III figure 10 -----	1-17

INTERNATIONAL SEARCH REPORT

Information on patent family members

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